



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/017,375

12/14/2001

Harinath Garudadri

010331

8079

23696 7590 12/18/2009
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

OPSASNICK, MICHAEL N

ART UNIT

PAPER NUMBER

2626

NOTIFICATION DATE

DELIVERY MODE

12/18/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/017,375	Applicant(s) GARUDADRI ET AL.	
	Examiner MICHAEL N. OPSASNICK	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/2/09 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1,2,5,6,8-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10, 35-59 of copending Application No. 11/680740. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the independent claims of 11/680740 contain the extra step of detailing the amount of frame delay, this additional feature is not necessary to support the functionality of the remainder of the claim elements, which are common to the claims of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,2,5,6,8-33 are rejected under 35 U.S.C. 103 as being unpatentable over Kushner et al (6633839) in view of Gao et al (6581032).

As per claims 1,2,5,6, Kushner et al (6633839) teaches a distributed speech recognition system with a subscriber unit (col. 1 lines 5-10, Fig. 1) showing a feature extraction module extracted from speech frame signals(as extracting mfcc values – fig. 7); using a voice activity detection module for voice activity (col. 6 lines 34-59, showing voiced/unvoiced/silence activity based upon a voicing level determination, as well as using an extra 8 bits for frames that has voicing determination only); and a wireless transmitter to transmit the detected activity and the features corresponding to different portions of the speech signal over a distributed voice recognition system (Figs. 1,2, and 3). Kushner does not detail the voice activity detection information to be delivered at least one frame before the features, however, Gao et al (6581032) teaches the distribution of the rate information to the decoder before frames of speech information are decoded (Gao, col. 12 lines 9-23 --> examiner notes that in this paragraph, Gao discusses the providing of rate selection information to the decoder ahead of the speech information; the rate selection of Gao is a measure of voice activity -- see col. 9 line 53 - col. 10 line 59 -- full/half(type 0 and type 1)/quarter/eight rate selection is based upon the level/type of speech activity in the frame). Therefore, it would have been obvious to one of ordinary skill in the art of speech packet information/distribution to modify the communication system of Kushner with a separate notification to the decoder regarding voicing activity because it would advantageously update the decoders in a timely fashion as to improve the quality of the reconstructed speech and maintaining the average bit rate (Gao, col. 12 lines 9-23; col. 5 lines 19-22).

As per claims 8,14,20, Kushner et al (6633839) teaches the use of 2 bits to command the speech synthesizer in terms of what type of speech activity is contained in the frame (col. 6 lines 34-38).

As per claims 9,10,15,16,21,22, Kushner et al (6633839) teaches using the speech recognition information for hands free voice dialing or hand free information retrieval (col. 1 lines 15-20) in a DSR (col. 1 lines 40-50).

As per claims 11-13,17-19,23-25, Kushner et al (6633839) teaches detection of silence (based on a limit of 4subframe energy comparison), features are frequency based (col. 6 lines 42-45), and lower bit rate during silence (col. 6 lines 58-65).

Claims 26-33 are computer readable medium claims that force a processor to perform the method steps of claims 1-25, (and furthermore, Kushner et al (6633839) teaches a dsp processor - one of ordinary skill in the art easily recognizes that a dsp processor contains memory with processor instructions - fig. 4); as such, claims 26-33 are similar in scope and content to the method claims 1,2,5,8-25 and are rejected under similar rationale as presented against claims 1,2,5,8-25 above.

Response to Arguments

6. Applicant's arguments filed 8/26/09 have been fully considered but they are not persuasive. As per applicants arguments from page 9-10 of the response, examiner argues that the recited portions of Kushner (with voice activity detection) matches applicants definition of speech frame. Kushner's voice activity detection provides for the example of contiguous speech frames, that is, if voice activity persists, frames are designated speech frames without non-speech frames. The combination of Kushner in view of Gao teaches the signifying of a speech,non-speech, voiced, unvoiced (based upon the bit pattern as disclosed by Kushner), but in a format that precedes the rest of the frame information (as disclosed by Gao). Examiner notes related art listed below that relates to the removal of noise frames.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Monday-Friday, 9am-5pm.

Art Unit: 2626

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richemond Dorvil, can be reached at (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael N. Opsasnick/
Primary Examiner, Art Unit 2626
12/13/09